

How the Invention Works

When pressure is applied to the expansion loop, the headband expands. The pressure may be applied by hand or a surgeon's arm or by another person (a caretaker for a disabled person, e.g.). When the pressure is released, the headband contracts and the (2) two bands on either side of the head align the visor optically the same way every time. No further adjustment need be made for perfect optical alignment.

My application for a patent concerns the expansion loop, which is totally new. Headbands and visors have been made for a long time. Many brands already exist and my invention does not effect those already existing patents. I have developed a unique concept for an expansion loop that provides optical alignment every time pressure on it is removed and replaced.

The following claims apply to my invention.

Figure 1. the top view of the headband, shows an expansion loop (right on top of band). The fastener that allows adjustment and secures the visor to the headband, and the expansion loop. This pat is adjustable so it will fit the patient's requirements.

Figure 2. the front view of the headband, shows four attached bands that achieve perfect optical alignment. (fasteners in front).

Figure 3. the side view of the headband, shows a fastener that allows adjustment and secures the visor to the headband, the attached bands and the expansion loop.

Figure 4, the front view of the visor, shows the visor's elongated mounting parts to accommodate either fixed, adjustable mechanical or electronic monoculars. The elongated parts allow for adjustment to the patient's center distance.

Figure 5, the side view of the visor, shows an elongated bracket in the front. This bracket is elongated to allow for proper adjustment alleviation of any cantilever effect from heavy monoculars. It maintains stability.

Parts List

1. Expansion Loop
2. Fastener
3. Attached Bands
4. Elongated Mounting Parts
5. Bracket
6. Alignment Adjuster
7. Alignment Clamp
8. Beveled Adjuster